

## ABSTRACT OF THE DISCLOSURE

The invention provides a superior robot apparatus and a motion controlling method for the robot apparatus wherein a reflex motion or the like can be performed at a high speed while decreasing the calculation amount of and the concentrated calculation load to a control apparatus. The robot has a control configuration having a hierarchical structure including a higher order central calculation section corresponding to the brain, reflex system control sections corresponding to the vertebra, and servo control systems and actuators corresponding to the muscles. From restrictions to the power consumption and so forth, there is a limitation to increase of the speed of a control cycle of the higher order central calculation section. External force acting upon the machine body is a disturbance input of a high frequency band, and a very high speed control system is required. Therefore, the reflex control systems which correspond to an intermediate hierarchy operate in a high speed cycle to respond at a high speed to the external force to absorb a deviation caused by the disturbance.